

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) An apparatus for fixing a plate to bony material, comprising:
a plate having a unitary body with at least one opening having a spherical curvature extending at least partially through the thickness of the plate; and
at least one fastener having a head that interferes with an interference point of the plate;
wherein the head is capable of engaging with and passing the interference point to communicate with the spherical curvature,
wherein the interference point is a portion of the unitary body of the plate and conforms to the spherical curvature of the at least one opening and located at an upper portion of the at least one opening, and
wherein the interference point includes a plurality of relief areas and a plurality of engagement areas, and
wherein the fastener head comprises a partially spherical outer surface corresponding approximately to the spherical surface of the plate opening, at least one slit located on the fastener head to permit outward expansion of the fastener head, and a locking screw capable of being received in a receptacle formed in the fastener head.
2. (Previously Presented) The apparatus according to claim 1, wherein the plurality of relief areas are diametrically opposed.

3. (Previously Presented) The apparatus according to claim 1, wherein at least two tangents from an outer most portion of the spherical curvature of the plate intersect.
4. (Previously Presented) The apparatus according to claim 3, wherein an angle of intersection of the at least two tangents is between about 1 and about 5 degrees.
5. (Previously Presented) The apparatus according to claim 3, wherein an angle of intersection of the tangents is between about 1 and about 3 degrees.
6. (Previously Presented) The apparatus according to claim 2, wherein the at least one relief area comprises less than about 40% of the interference point.
7. (Previously Presented) The apparatus according to claim 2, wherein the at least one relief area comprises less than about 30% of the interference point.
8. (Canceled).
9. (Canceled).
10. (Canceled).
11. (Canceled).

12. (Canceled).

13. (Canceled).

14. (Canceled).

15. (Canceled).

16. (Canceled).

17. (Currently Amended) An apparatus for fixing a plate to bony material, comprising:

a plate having a unitary body and comprising at least one opening having a spherical curvature; and

at least one fastener having a head capable of engaging with and passing through a interference point of this spherical curvature;

wherein the fastener is prevented from backing out of the opening by the interference point,

wherein the interference point is a portion of the unitary body and conforms to the spherical curvature of the at least one opening and located at an upper portion of the at least one opening, ~~and~~

wherein the interference point includes a plurality of relief areas and a plurality of engagement areas, and

wherein the fastener head comprises a partially spherical outer surface corresponding approximately to the spherical curvature of the plate opening, at least one slit located on the fastener head to permit outward expansion of the fastener head, and a locking screw capable of being received in a receptacle formed in the fastener head.

18. (Previously Presented) The apparatus according to claim 17, further comprising another opening selectively positioned to increase interference at the interference point.

19. (Previously Presented) The apparatus according to claim 17, wherein at least two tangents to the spherical curvature intersect.

20. (Canceled).

21. (Withdrawn) A fastener for mounting an implant to bone comprising:

an elongate fastener body having a longitudinal axis, a proximal end, and a distal end;

a threaded portion disposed on the distal end of the fastener, wherein said threaded portion is capable of screwing into bone;

a fastener head portion disposed on the proximal end of the fastener, wherein the fastener head comprises:

a partially spherical outer surface;

an interior surface defining a receptacle for receiving a locking fastener;

and

at least one slit extending between the outer surface and interior surface of the fastener head to permit outward expansion of the fastener head; and

a locking fastener capable of being received in the receptacle of the fastener head.

22. (Withdrawn) The fastener of claim 21, further comprising:

a plate having at least one aperture configured and adapted to include an interference area integrally formed therein to prevent the fastener from backing out of the interference area.

23. (Withdrawn) The fastener of claim 21, further comprising:

a plate having at least one opening having a spherical curvature extending at least partially through the thickness of the plate, wherein insertion of the fastener head interferes with the plate at an interference point, and wherein the fastener head is capable of engaging with and passing the interference point to communicate with the spherical curvature.

24. (Withdrawn) The fastener of claim 21, wherein the fastener head comprises two or more slits extending between the outer surface and interior surface of the fastener head to permit outward expansion of the fastener head.

25. (Withdrawn) The fastener of claim 24, wherein the fastener head comprises four or more slits extending between the outer surface and interior surface of the fastener head to permit outward expansion of the fastener head.